Tennessee Pollution Prevention Partnership Success Story



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www.thswildcats.com/about.php

Lab Chemicals Removed from Tullahoma High School

The Member

Tullahoma High School in Coffee County has approximately 1200 students in grades 9-12. We strive to be a progressive school with a strong desire to reduce waste and maintain a cost-efficient building. Besides establishing a healthy learning environment for our students, the Science Department tries to involve them in projects that will teach environmental stewardship.

The Story

Tullahoma High School had "grand-fathered" quite a supply of legacy chemicals in their storage room over many years. Many of the chemicals had not been used over a long period of time. As world conditions changed, 9/11 raised awareness that these compounds should not be stored at a public high school. We discovered TDEC's School Chemical Cleanout Campaign and made contact with Ken Nafe. We provided an inventory of the chemicals in our storeroom. Mr. Nafe also assisted Tullahoma School System with using the high school as a center for the collection of toxic chemicals from other elementary and middle schools in the city.

The Success

An impressive amount of chemicals was collected. After successful completion of the chemical cleanout. dangerous materials. solids and liquids, including flammable oxidizing liquids, corrosive acids and alkalis, formaldehyde, reactives, mercury and compounds were finally removed from Tullahoma School System. We have followed up this initiative by developing Microscale

chemistry lessons that teach traditional chemical principles using smaller amounts of chemicals and resulting in smaller amounts of waste. We have also adopted Green Chemistry lessons for many of our lab experiments, which use safer, non-toxic chemicals. Finally, we have a clean school system that discourages ordering and using toxic chemicals. As a follow-up to the cleanout, Tullahoma Science teacher, Mr. Charles Cox, shared his success story, along with providing a Microscale chemistry lesson for other teachers at a session of the Tennessee Science Teachers Association meeting. Also following the clean-out project, Tullahoma High School received a Certificate of Merit in the 2005 TP3 Green School Awards in the Hazardous Materials Reduction category.

The Pollution Prevented

Mercury and old, outdated or unknown chemicals are potentially dangerous to human health and could cause significant damage to the school and surrounding environment if an accident or spill were to occur. By disposing of approximately 400 pounds of chemicals, including 15 pounds of mercury and mercury-containing compounds, Tullahoma High School is now much safer. By incorporating Microscale and Green Chemistry into the school labs, hazardous waste will no longer accumulate. Another 413 pounds of chemicals were collected and disposed from other schools in the city school system on the collection day.

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